TEF 2850 Ex
NAVIGATION LIGHT
USER MANUAL

IMPORTANT

Read this instruction carefully before installing the product

WARNING!

DO NOT OPEN, MAINTAIN OR SERVICE IN AN AREA WHERE AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT.

TUM 4769 REV. D 13.04.2015

Tranberg AS | P.O. Box 8033 | N-4068 Stavanger | Norway | Tel.: (47)51 57 89 00 | Fax.: (47)51 57 89 50
E-mail: info@tranberg.com | www.tranberg.com
Tranberg Systems | Hjulmagervej 15C | 7100 Vejle | Denmark | Tel.: (45) 75 85 83 80
E-mail: mail@tranbergsystems.com | www.tranbergsystems.com

TEF 2850 Ex NAVIGATION LIGHT USER MANUAL

INTRODUCTION

Thank you for purchasing this product!
For installation, maintenance and assurance of a long life of this product, please follow this manual.

CONTENT IN BOX

The product is fully assembled, and ready for installation.

SAFETY PRECAUTIONS

Note that changes made to the product and/or installation of components which do not conform to the approval, may be a safety violation. The manufacturer will in no circumstance be held responsible for such activity. For your health and safety, always use safety gear suited for the task. Be certain to follow codes, regulations and/or specific procedures that are related to the installation.

IMPORTANT INFORMATION

The navigation lights are supplied with galvanic isolators. These should be placed between the navigation lights and the wall, thus preventing corrosion to either. There should be used acid resistant stainless steel fixing screws/bolts. Never paint the navigation light or any of its components. Use only spare parts as described.

TOOLS REQUIRED

Regular tools required for installation.

- Wrench(es) suitable for selected M10 bolts for fixing navigation light to mast / ships structure.
- Flat screwdriver for opening junction box.
- 27mm wrench for installing of cable gland.
- 19 mm wrench for opening top lid.
- Small flat screwdriver for terminating wires.

MAINTENANCE INSTRUCTIONS

Gasket for top lid and junction box shall be replaced at intervals of one year. (Part No. 5001 0040 and 5001 0041). Gaskets shall be of same type as originals. One set of replacement gaskets are included in shipment.

The navigation light should be inspected according to Company routines. The manufacturer suggests regular check for water intrusion / condensation which should be removed immediately. When cleaning, use only mild detergents. Alcohol or petroleum based products may damage lens, paint or plastic components.

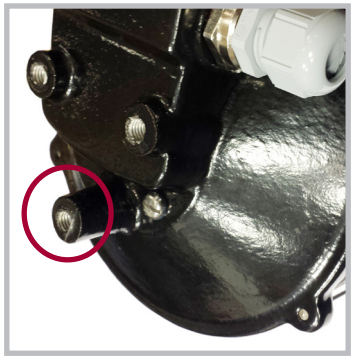
At intervals according to company routines, the restricted breathing properties should be verified. Remove stopping plug at test port (M20). See illustration below. Connect pressure meter / vacuum pump and conduct test according to IEC 60079-15(2010) 23.2.3.2.1.1. Note: M20 gland for connection of Ø5-10mm hose is included in shipment. Note: According to approval, test of restricted breathing properties is not required.

INSTALLATION INSTRUCTIONS

The navigation light should be installed according to IMO regulations and other relevant rules and regulations for electrical installations onboard ships.
Consider the difference in material between the navigation light (seawater resistant brass) and the wall/mast it is to be installed on. Use galvanic isolators whenever there is a risk of corrosion.

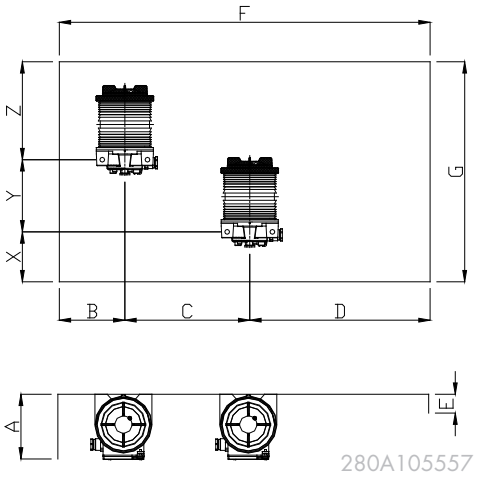
- Fix navigation light to mast / ships structure using M10 bolts (not supplied). Use acid resistant screws/bolts. Tight firmly, max. 25 Nm.
- Open junction box to install and secure electrical cable. The cable must be clamped near up to the navigation light according to relevant rules and regulations for electrical installations onboard ships.
- Connect electrical wires. Max. 2.5mm^2. Strip length 8mm. Tightening force 0.6-0.8nm. Connect ground wire to M5 earth screw in junction box.
- Screw on junction box lid. Max. tightening force: 5 Nm. Make sure that gasket is centered and covering the whole perimeter.
- External bonding conductor. Connect bonding wire to point shown in illustration below.

Allround Navigation Light

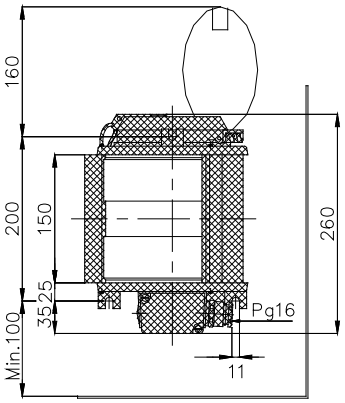


Sector Navigation Light

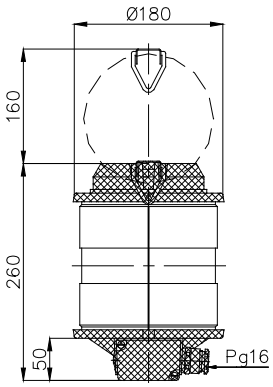
SCREENING DATA FOR SIDE

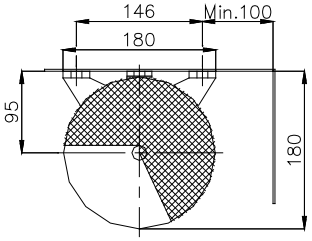


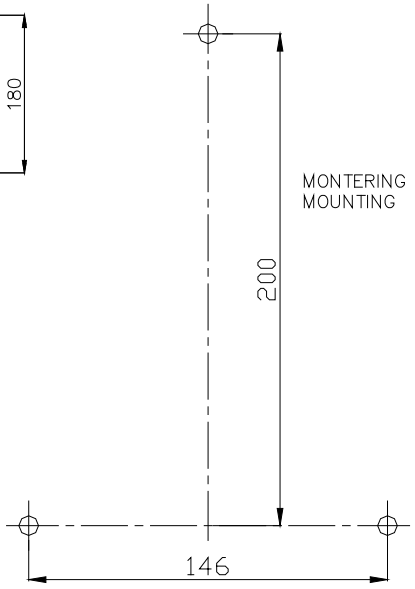
Sector navigation light



All round navigation light







NOTE:

All measurements in millimeters
All tolerances +/-1mm
Minimum measurements indicated by an asterix (*)

Formula:

	A	B	C*	D	E	F*	G*	X*	Y*	Z*
TEF 2850 Navigation light	<B*2	>=250	225	>=C*2	95-(0,026*D)	900	590	55	260	275

Recommended practical measurements:

	A	B	C*	D	E	F*	G*	X*	Y*	Z*
TEF 2850 Navigation light	500	250	225	450	84	900	590	55	260	275

LAMP REPLACEMENT

WARNING - DO NOT OPEN, MAINTAIN OR SERVICE IN AN AREA WHERE AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT.

Use a 19mm wrench to screw off lid. Twist off lamp and replace. Screw lid back on. Tightening force: 10 nm.

SPARE PARTS

Description	Part No.
Light source, B22 65cd 85W 220V	9400 001
Light source, B22 65cd 85W 110V	9400 002
Light source, B22 35cd 55W 220V	9400 003
Light source, B22 35cd 55W 110V	9400 004
Mounting bracket for 1” pipe	2622
Mounting bracket for 2” pipe	2615
Lamp holder B22	5088 0010
Gasket, junction box	5001 0041
Gasket, top lid	5001 0040
Cable gland M20 Ex nR Ø6.5-14mm	5030 0000
Gland M20 Ø5-10mm for restricted breathing test.	5657

TRANBERG

Tranberg AS, Strandsvingen 6, P. O. Box 8033, N-4068 Stavanger, Norway
Tel. [+47] 51 57 89 00 – Fax:[+47] 51 57 89 50 - info@tranberg.com - www.tranberg.com Reg.no.: NO 986 926 909 MVA

Declaration of Conformity

We,

Manufacturer: **Tranberg AS,** **Address:** **Strandsvingen 6, Gausel. P. O. Box 8033, N-4068 Stavanger, Norway.**

Responsible representative: **Tranberg AS,** **Address:** **Strandsvingen 6, Gausel. P. O. Box 8033, N-4068 Stavanger, Norway.**

Declare under our sole responsibility that the Products

Navigation Lights with Type designations
TEF 2840, TEF 2850, TEF 2870, TEF 2898

application of Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by Directive 2009/26/EC, issued as “Forskrift om Skipsutstyr” by the Norwegian Maritime Directorate,

to which this Declaration relates, to conforms to the following Regulations/Standards:

Annex A.1, item No. A.1/6.1 and Annex B, Module B in the Directive. COLREG 72 as amended, Annex I/14, IMO Res. A.694(17) and IMO Res. MSC.253(83)

For assessment, see
- EC Type-Examination (Module B) Certificate MED-B-7473 issued by DNV
- Product Quality System (Module D) Certificate MED-D-1497 issued by DNV

This Declaration is issued according to the provisions of European Council Directive 98/98/EC on Marine Equipment as amended by Directive 2009/26/EC.

Stavanger,
Date: 2011.05.02
Updated: 2011.05.12
Updated: 2015.02.26

Torstein Rysstad

Torstein Rysstad
Discipline Lead Electronics

TECNICAL DATA

Material:	Powder coated aluminium, lens of trough-colored glass.
Input voltage:	According to installed light bulb. Max. 230V.
Light source:	55W for vessels 20-50 meters. 85W for vessels over 50 meters.
Lamp base:	B22
Power comsumption:	55-85W
Ingress protection:	IP56
Cable gland:	M20 Ex nR Ø6.5-14mm
Area of use:	Ex zone 2 and safe area.
Ex classification:	Ex II3G Ex nR IIC Gc T5
Operating temperature:	-52°C to +45°C
Certificate No.	EC type examination MED-B-6820 issued by DNV Product quality system MED-D-1497 issued by DNV PRESAFE 14 ATEX 5436X IECEx PRE 14.0055X Special conditions: Resistance to impact is tested with reduces values, according to IEC 60079-0, 26.4.2, “low risk of mechanical damage”.
Compliance standards:	Directive 96/98/EC Annex A.1 item No. A.1/6.1 and Annex B module B, COLREG 72 as amended, Annex I/14, IMO Res A.694(17), IMO Res MSC.253(83) IEC 60079-15(2010), IEC 60079-0(2011)